

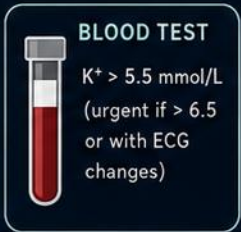


MRCP: HYPERKALAEMIA

STABILISE • SHIFT • REMOVE

1. RECOGNISE

Think of hyperkalaemia in **renal failure**, **ACEi/ARB** use, **potassium-sparing drugs**, **acidosis**, **tissue breakdown**.



2. ECG CHANGES

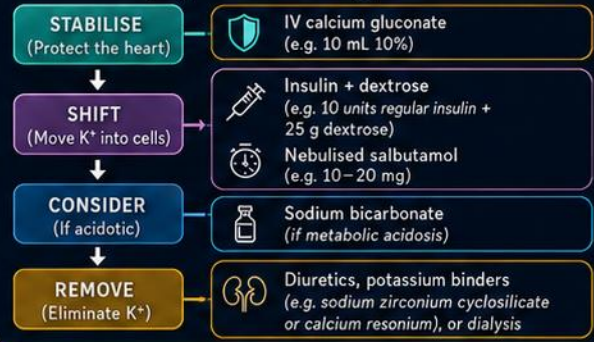
Classic sequence of ECG changes as potassium rises:

- 1 Tall peaked T waves
- 2 PR prolongation
- 3 QRS widening
- 4 Sine-wave pattern



3. TREAT

High-yield treatment approach:



GOAL	STABILISE	SHIFT	REMOVE
EXAMPLE TREATMENT	IV calcium gluconate 10 mL of 10% over 2–5 minutes	Insulin + dextrose 10 units regular insulin IV + 25 g dextrose Nebulised salbutamol 10–20 mg	Loop diuretics (e.g. furosemide) Potassium binders (e.g. SZC, calcium resonium) Dialysis
KEY EFFECT	Stabilises the myocardium Reduces risk of arrhythmias (onset in minutes)	Drives potassium into cells (onset in 15–30 min)	Removes potassium from the body (hours)
IMPORTANT CAUTION	Avoid extravasation (anaphylaxis risk with calcium chloride)	Risk of hypoglycaemia Monitor glucose after insulin	Binders take time to work Dialysis for refractory or life-threatening cases

EMERGENCY RED FLAGS

- Arrhythmia (palpitations, cardiac arrest)
- Muscle weakness or paralysis
- Syncope or collapse
- Very high potassium (> 6.5 mmol/L)
- Widening QRS or sine-wave on ECG

QUICK RECALL

- 1 Which treatment protects the heart?
- 2 Which treatment shifts potassium intracellularly?
- 3 When should dialysis be considered?

★ **KEY IDEA:** Always **stabilise** the myocardium first, then **shift** potassium, then **remove** it from the body. ★